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FILE 'CAPLUS' ENTERED AT 13:19:34 ON 13 AUG 2002
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                                                          - TRANSCREPT ..
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)
                                                               ing trn
=> s anhydride
        170631 ANHYDRIDE
         27578 ANHYDRIDES
        180168 ANHYDRIDE
L1
                  (ANHYDRIDE OR ANHYDRIDES)
=> s phospho? or sulfo?
        841816 PHOSPHO?
        323927 SULFO?
       1148795 PHOSPHO? OR SULFO?
L2
 => s 11 and 12
         18645 L1 AND L2
 => s 13 and carboxylic
         187045 CARBOXYLIC
             46 CARBOXYLICS
         187063 CARBOXYLIC
                  (CARBOXYLIC OR CARBOXYLICS)
           2184 L3 AND CARBOXYLIC
 T.4
 => s 14 and amine
         222622 AMINE
         207396 AMINES
         340793 AMINE
                   (AMINE OR AMINES)
             387 L4 AND AMINE
 1.5
  => s 15 and mixed
          671364 MIXED
               6 MIXEDS
          671368 MIXED
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              50 L5 AND MIXED
  1.6
  => d 1-5
       ANSWER 1 OF 50 CAPLUS COPYRIGHT 2002 ACS
  L6
       2002:283003 CAPLUS
  AN
       Synergistic effect in the catalysis by pyridine N-oxide-triethylamine
  DN
       mixture of acyl transfer processes with participation of benzoyl,
  ΤI
       diethoxyphosphinoyl, and p-toluenesulfonyl chlorides
       Belousova, I. A.; Savelova, V. A.; Simanenko, Yu. S.; Panchenko, B. V.
       Litvinenko Institute of Physical Organic and Coal Chemistry, National
  ΔU
       Academy of Sciences of Ukraine, Donetsk, 83114, Ukraine
  CS
       Russian Journal of Organic Chemistry (Translation of Zhurnal Organicheskoi
  SO
       Khimii) (2002), 38(1), 111-114
       CODEN: RJOCEQ; ISSN: 1070-4280
       MAIK Nauka/Interperiodica Publishing
   PΒ
        Journal
   \mathtt{DT}
                 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
       English
                 ALL CITATIONS AVAILABLE IN THE RE FORMAT
   RE.CNT 17
        ANSWER 2 OF 50 CAPLUS COPYRIGHT 2002 ACS
        2001:814004 CAPLUS
   AN
        Preparation of luminescent-doped inorganic nanoparticles and usage as
        135:341136
   DN
   ΤI
        labels for biomolecule probes
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Hoheisel, Werner; Petry, Christoph; Bohmann, Kerstin; Haase, Markus;
     Riwotzki, Karsten
     Bayer A.-G., Germany
PΑ
     Ger. Offen., 12 pp.
SO
     CODEN: GWXXBX
     Patent
     German
LA
FAN.CNT 1
                                           APPLICATION NO. DATE
                     KIND DATE
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                                            -----
     _____
                                         DE 2001-10106643 20010212
                     A1 20011108
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                                           WO 2001-EP4545 20010423
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     WO 2001086299 A2 20011115
                      A3 20020523
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
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 PRAI DE 2000-10021674 A1 20000505
      DE 2001-10106643 A
                             20010212
      ANSWER 3 OF 50 CAPLUS COPYRIGHT 2002 ACS
 L6
      2001:730844 CAPLUS
 AN
      Resins curable with actinic radiation, process for the production thereof,
 DN
      and photo- and thermo-setting resin composition
 ΤI
      Nishikubo, Tadatomi; Kameyama, Atsushi; Sasaki, Masaki; Kusama, Masatoshi
      Kanagawa University, Japan; Taiyo Ink Manufacturing Co., Ltd.
 TN
 PΑ
      PCT Int. Appl., 50 pp.
 SO
      CODEN: PIXXD2
      Patent
 DT
      Japanese
 LA
 FAN.CNT 1
                                             APPLICATION NO. DATE
                      KIND DATE
       PATENT NO.
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                                          WO 2001-JP2487 20010327
       WO 2001072857 A1 20011004
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RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
               PT, SE, TR
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A
  PRAI JP 2000-90897
                THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
                             20001207
       JP 2000-373400
                ALL CITATIONS AVAILABLE IN THE RE FORMAT
  RE.CNT 7
       ANSWER 4 OF 50 CAPLUS COPYRIGHT 2002 ACS
  Ь6
       2000:475480 CAPLUS
  AN
       The use of polyether hydroxycarboxylate copolymer process aid in textile
  DN
  ΤI
        manufacturing and treating processes
       Rodrigues, Klein A.; Carrier, Allen M.; Hazlewood, Michael C.
       National Starch and Chemical Investment Holding Corporation, USA
  IN
  PΑ
        Eur. Pat. Appl., 15 pp.
   SO
        CODEN: EPXXDW
        Patent
       English
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                        KIND DATE
        PATENT NO.
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                                              EP 1999-124919 19991214
        EP 1018572 A1 20000712
            R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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IE, SI, LT, LV, FI, RO 19990105 US 1999-225768 US 6369023 B1 20020409 PRAI US 1999-225768 A 19990105 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT RE.CNT 4 ANSWER 5 OF 50 CAPLUS COPYRIGHT 2002 ACS L6 1999:725666 CAPLUS AN 132:108283 Synthesis of L-2-(N-pteroylamino)-3-(N-phosphonoacetyl DN ) aminopropanoic acid as an analogue of the putative phosphorylated intermediate in the .gamma.-glutamation of folic acid by folylpolyglutamate synthetase Forsch, Ronald; Bader, Henry; Rosowsky, Andre Department of Biological Chemistry and Molecular Pharmacology, Harvard ΑU Medical School, Boston, MA, 02115, USA CS Pteridines (1999), 10(1), 39-46 so CODEN: PTRDEO; ISSN: 0933-4807 International Society of Pteridinology PΒ DT Journal THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD LA English ALL CITATIONS AVAILABLE IN THE RE FORMAT RE.CNT 32 => d 6-10ANSWER 6 OF 50 CAPLUS COPYRIGHT 2002 ACS 1999:575146 CAPLUS AN The use of polyalkylene oxide-based graft polymers as plasticizer for DN aluminate cement-containing binder suspensions тT Wache, Steffen; Wutz, Konrad; Bichler, Manfred IN SKW Trostberg A.-G., Germany PΑ Ger. Offen., 10 pp. SO CODEN: GWXXBX Patent DТ German LΑ APPLICATION NO. DATE FAN.CNT 1 PATENT NO. KIND DATE PI DE 19808314 A1 19990902 DE 1998-19808314 19980227 -----RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 7 OF 50 CAPLUS COPYRIGHT 2002 ACS L6 AN 1999:498285 CAPLUS TI Method for manufacture of heat-resistant resin precursors with low chlorine ion content and photosensitive compositions containing them Tomikawa, Masao; Yoshida, Tomoyuki; Miura, Yasuo IN Toray Industries, Inc., Japan Jpn. Kokai Tokkyo Koho, 14 pp. PA SO CODEN: JKXXAF DTPatent Japanese LА APPLICATION NO. DATE FAN.CNT 1 KIND DATE PATENT NO. \_\_\_\_\_ -----JP 1997-344717 19971215 PI JP 11217434 A2 19990810 PRAI JP 1997-324192 19971126 ANSWER 8 OF 50 CAPLUS COPYRIGHT 2002 ACS 1999:394671 CAPLUS

AN

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Low-temperature curable polyimide precursors, their manufacture, and
DN
     polyimides having excellent adhesion for color filters
ΤI
     Taniguchi, Masaharu; Tomita, Fumio; Kajita, Junji
     Toray Industries, Inc., Japan
PΑ
     Jpn. Kokai Tokkyo Koho, 6 pp.
SO
     CODEN: JKXXAF
     Patent
DT
     Japanese
LΑ
                                          APPLICATION NO. DATE
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                                           _____
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                                                           19971203
                                           JP 1997-332910
                      A2 19990622
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PΤ
     ANSWER 9 OF 50 CAPLUS COPYRIGHT 2002 ACS
L6
     1997:315083 CAPLUS
AN
     Mechanism of Polyphosphoric Acid and Phosphorus
DN
     Pentoxide-Methanesulfonic Acid as Synthetic Reagents for Benzoxazole
 TΙ
      Formation
      So, Ying-Hung; Heeschen, Jerry P.
      Central Research Development, Dow Chemical Company, Midland, MI, 48674,
 ΑU
 CS
      Journal of Organic Chemistry (1997), 62(11), 3552-3561
 so
      CODEN: JOCEAH; ISSN: 0022-3263
      American Chemical Society
 PΒ
      Journal
 DT
      English
 LΑ
      ANSWER 10 OF 50 CAPLUS COPYRIGHT 2002 ACS
 L6
      1997:80539 CAPLUS
 AN
      Water-soluble polymers and compositions for separation of metals from
      126:89941
 DN
  TI
      Smith, Barbara F.; Robison, Thomas W.; Gohdes, Joel W.
       aqueous streams
      Regents of the University of California, USA; Smith, Barbara F.; Robison,
  IN
  PA
       Thomas W.; Gohdes, Joel W.
       PCT Int. Appl., 52 pp.
  SO
       CODEN: PIXXD2
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  DT
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  LΑ
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                                            WO 1996-US8188 19960530
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       WO 9638493 A1 19961205
           W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE,
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                                         US 1995-454451 19950530
                              19990406
                        A
AA
aa
                                             CA 1996-2221618 19960530
        US 5891956
                              19961205
                                                              19960530
                                            AU 1996-59599
        CA 2221618
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                         A1
                                             EP 1996-916867 19960530
        AU 9659599
                         A1 19980318
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        CN 1186506
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        JP 11506488
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                         A 19991207
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        BR 9608743
                                            AT 1996-916867
        AT 196305 E
ES 2152529 T3
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                                                               19960530
                                              ES 1996-916867
        AT 196305
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   PRAI US 1995-454451 A
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#### W 19960530 WO 1996-US8188

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=> d his
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       180168 S ANHYDRIDE
L1
       1148795 S PHOSPHO? OR SULFO?
L2
         18645 S L1 AND L2
L3
          2184 S L3 AND CARBOXYLIC
L4
           387 S L4 AND AMINE
L5
            50 S L5 AND MIXED
L6
=> s 15 and chlorocarbonate
         1233 CHLOROCARBONATE
          162 CHLOROCARBONATES
          1325 CHLOROCARBONATE
                (CHLOROCARBONATE OR CHLOROCARBONATES)
            2 L5 AND CHLOROCARBONATE
L7
=> d 1-2
     ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS
    1996:137589 CAPLUS
AN
TI Preparation of azaspiroheptane and azaspirooctane derivatives as
     intermediates for antibacterial quinolonecarboxylic acid derivatives
    Kin, Kanchu; Boku, Meikan; Kawa, Zaito; Haku, Keigyo
 IN
     Korea Res Inst Chem Tech, Japan
 PΑ
     Jpn. Kokai Tokkyo Koho, 28 pp.
 SO
      CODEN: JKXXAF
     Patent
 DT
 LΑ
     Japanese
     PATENT NO. KIND DATE APPLICATION NO. DATE
 FAN.CNT 1
      JP 07300460 A2 19951114 JP 1992-358726 19921228
 PΙ
    MARPAT 124:202006
 os
     ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS
 L7
 AN 1939:26801 CAPLUS
 DN 33:26801
 OREF 33:3814a-i
  TI N-Acyl urethans
      J. R. Geigy A.-G.
  PA
      Patent
  DT
      Unavailable
  LA
      PATENT NO. KIND DATE APPLICATION NO. DATE
  FAN.CNT 1
                                         GB
                           19381221
  PI GB 497506
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ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS 1.7

GI

$$R^{2}$$
 $R^{2}$ 
 $R^{2}$ 
 $R^{2}$ 
 $R^{3}$ 
 $R^{2}$ 
 $R^{3}$ 
 $R^{3}$ 
 $R^{1}$ 
 $R^{1}$ 
 $R^{1}$ 
 $R^{2}$ 
 $R^{3}$ 
 $R^{1}$ 
 $R^{1$ 

The title compds. [I; R1 = H, (un)substituted C1-20 alkyl or CH2Ph, N-protective group; R2 = H, Me preferably substituted at 4- or 6-C atom; ΔR R3 = CO2H, CON3, isocyanato, CONHR10, (CH2)mY; wherein R10 = H, benzyl, C1-8 alkyl, C1-5 alkoxycarbonyl; m = 0,1; Y = HO, C2-5 acyloxy, MeO, p-toluenesulfonyloxy, NH2 substituted with one or two C1-4 alkyl, one C1-4 alkanoyl, one CH2Ph, or N-protective group metabolizable in vivo; the R3-attached C atom is chiral and the stereochem. configuration is (1R,3S), (1R,3R), (1S,3S), or (1S,3R)] are prepd. Thus, 5.5 g 1-benzyloxycarbonyl-3-methylenepyrrolidine and 55 mg rhodium acetate dimer were added to 20 mL cyclohexane and the resulting mixt. was refluxed, followed by adding a soln. of 6.4 mL Et diazoacetate in 20 mL cyclohexane over 10 h, and the reaction mixt. was filtered and evapd. in vacuo to give, after silica gel chromatog., 5-azaspiro[2,4]heptane (II; R1 = CO2CH2Ph, R3 = CO2Et). This compd. was sapond. with a mixt. of 5% aq. NaOH and EtOH to give, after acidification with 2 N aq. HCl, II (R1 = CO2CH2Ph, R3 = CO2H), which (12 g) was dissolved in acetone, treated dropwise with 4.9 g Et3N over 5 min and then with a soln. of 5.2 g Et chlorocarbonate in 15 mL acetone at -5.degree. to 0.degree. over 30 min, stirred for 15 min, treated with a soln. of 5.2 g NaN3 in 15 mL H2O at the same temp. over 20 min, stirred for 30 min, and extd. with toluene to give, the azide II (R1 = CO2CH2Ph, R3 = CON3). The latter compd. (11.0 g) was dissolved in anhyd. toluene and refluxed to give the isocyanate II (R1 = CO2CH2Ph, R3 = isocyanato), which (9.0 g) was cooled, treated with 60 mL 8 N aq. HCl, gradually warmed, and refluxed for 10 min to give 89.9% II.2HCl (R1 = H, R3 = NH2). This compd. 1, 1-cyclopropyl-6,7,8-trifluoro-1,4-dihydro-4oxoquinoline-3-carboxylic acid 1.28, and DBU 2.4 g were dissolved in MeCN and refluxed for 3 h to give the oxoquinoline-3carboxylic acid deriv. (III), which showed min. inhibitory concn. of 0.195, 0.098, 0.025, and 0.013 .mu.g/mL against Streptococcus pyogenes 308A, S. faecium 77A, Staphylococcus aureus 285, and Salmonella typhimurium, resp.

#### => d abs 2

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS

AB Urethans of formula R(acyl)NCO2R' are prepd. by treating urethans of formula RN(H)CO2R' with acylating agents; R is a substituted or unsubstituted aliphatic or hydroaromatic radical and R' is a substituted or unsubstituted alkyl, aralkyl, cycloalkyl or aryl residue. The term acyl includes the residue of a satd. or unsatd. carboxylic acid which may also contain hetero atoms or hetero atom groupings such as O, S

and N and which may be further substituted, particularly by H2O-solubilizing groups. At least 1 of the groups R, R' or acyl must be an aliphatic or alicyclic residue contg. more than 8 C atoms. The acylation is preferably conducted in the presence of heat with fatty acid halides, with or without a solvent; acid-binding agents may also be present. H2O-soly. of the compds. is produced by the introduction of the SO3H group. Among examples, Me undecylcarbamate, made by decompg. undecylamine with Me chlorocarbonate, is dissolved in PhMe and treated with phenoxyacetyl chloride for 12 hrs., and evapd. to dryness, finally under reduced pressure, to yield Me N-phenoxyacetyl-Nundecylcarbamate, which may be converted into a H2O-sol. product by treatment 1st with 100% H2SO4 and then with oleum. Brit. 497,572, Dec. 21, 1938. Divided on 497,506 (above). N-Acyl urethans of formula RN(acyl)COOR' are prepd. by treating urethans of formula RNHCOOR' with halogen-substituted fatty acids, their halides, esters or anhydrides contg. exchangeable halogen. R' is a substituted or unsubstituted alkyl, aralkyl, cycloalkyl or aryl residue and R is a substituted or unsubstituted aliphatic or hydroaromatic radical. The term acyl includes the residue of a satd. or unsatd. carboxylic acid that contains an exchangeable halogen atom. At least 1 of the groups R, R' and acyl must be an aliphatic or alicyclic residue contg. more than 8 C atoms. The acylation is preferably conducted by treating the urethans with halo fatty acid halides with or without a solvent, e. g., C6H6 or PhMe. Acid-binding agents, e. g., pyridine or diethylaniline, may also be present. The exchangeable halogen atom may be replaced by univalent atom groupings such as -OR'', -SR'' or -NR'', where R'' may be an org. or inorg. substituent. -OR'' may be -OH, -OSO2H or the residues of aliphatic, hydroaromatic, aliphatic-aromatic or aromatic hydroxy compds., such as of MeOH, EtOH, benzyl alc., cyclohexanol, phenols or phenolsulfonic acids. Examples of this subgroup of acyl urethans include the reaction products of Me N-chloroacetyl-N-undecylcarbamate and PhONa and of Et N-chloroacetyl-N-heptadecylcarbamate and the mono-Na salt of glycerol. The group -SR'' may be -SH, -S203H, -S03H or radicals of mercaptans. Examples of this subgroup include the reaction products of Me N-chloroacetyl-N-laurylcarbamate with PhSH, NaHS, Na2S2O3 and NaHSO3. The group -NR'' may be the primary or secondary amino group. Examples of this subgroup include the reaction products of alkyl N-chloroacetyl-Nheptadecylcarbamates with NHMe2, methylaniline or taurine. H20-sol. compds. contg. quadrivalent N atoms are obtained by the addn. of tertiary amines, or by complete alkylation or aralkylation of the acyl urethan derivs. made with NH3 or primary or secondary amines or with esters of low-mol. alcs., e. g., Me2SO4. H2O-soly. may also be induced by the use of compds. that introduce the SO3H group, e. g., sulfites, CH2O-sulfites, thiosulfates and aliphatic or aromatic sulfonic acids bearing OH or amino groups. H2O-soly. may also be produced by after-sulfonation. Among examples, chloroacetyl chloride is added to the urethan obtained from NH2Me and the chloroformic ester of dodecyl alc. to give dodecyl N-chloroacetyl-N-methylcarbamate, which is then treated with aq. Na2SO3 to give a H2O-sol. product.

=> s 15 and mixed anhydride

671364 MIXED 6 MIXEDS

671368 MIXED

(MIXED OR MIXEDS)

170631 ANHYDRIDE

27578 ANHYDRIDES

180168 ANHYDRIDE

(ANHYDRIDE OR ANHYDRIDES)

3774 MIXED ANHYDRIDE

(MIXED (W) ANHYDRIDE)

9 L5 AND MIXED ANHYDRIDE

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ANSWER 1 OF 9 CAPLUS COPYRIGHT 2002 ACS
L9
    1997:315083 CAPLUS
AN
    126:343228
    Mechanism of Polyphosphoric Acid and Phosphorus
DN
    Pentoxide-Methanesulfonic Acid as Synthetic Reagents for Benzoxazole
     Formation
    So, Ying-Hung; Heeschen, Jerry P.
    Central Research Development, Dow Chemical Company, Midland, MI, 48674,
ΑU
CS
     Journal of Organic Chemistry (1997), 62(11), 3552-3561
SO
     CODEN: JOCEAH; ISSN: 0022-3263
     American Chemical Society
PΒ
     Journal
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    English
LΑ
     ANSWER 2 OF 9 CAPLUS COPYRIGHT 2002 ACS
Ь9
     1995:875024 CAPLUS
AN
    124:86585
     Reactive derivatives of BAPTA used to make ion-selective chelators
DN
ΤI
    Kuhn, Michael A.; Haugland, Richard P.
 IN
    Molecular Probes, Inc., USA
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    U.S., 29 pp.
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     US 5453517 A 19950926
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      US 1995-384945
     MARPAT 124:86585
     ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS
  L9
     1994:686404 CAPLUS
  AN
      1994 Syntex Award Lecture. Anionic electrophiles, protein modification,
      121:286404
  DΝ
  ΤI
       and artificial blood
       Kluger, Ronald
       Dep. Chem., Univ. Toronto, Toronto, ON, M5S 1A1, Can.
  ΑU
  CS
       Can. J. Chem. (1994), 72(11), 2193-7
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       CODEN: CJCHAG; ISSN: 0008-4042
       Journal; General Review
  DT
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       ANSWER 4 OF 9 CAPLUS COPYRIGHT 2002 ACS
  Ь9
       1991:247788 CAPLUS
  AN
       Peptide derivatives preparation as retroviral protease inhibitors
  DN
       Kempf, Dale J.; Plattner, Jacob J.; Norbeck, Daniel W.; Boyd, Steven A.;
  ΤI
       Baker, William R.; Erickson, John W.; Fung, Anthony K. L.; Crowley, Steven
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Abbott Laboratories, USA
    PCT Int. Appl., 222 pp.
    CODEN: PIXXD2
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LA English
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                                      WO 1989-US2055 19890512
                   A1 19891116
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    WO 1989-US2055
    MARPAT 114:247788
   ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS
   1978:529919 CAPLUS
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DN
    Peptides. X. Diethyl phosphorobromidate - an effective new
TI
    peptide-forming agent
    Gorecka, A.; Leplawy, M.; Zabrocki, J.; Zwierzak, A.
    Inst. Org. Chem., Tech. Univ. Lodz, Lodz, Pol.
CS
    Synthesis (1978), (6), 474-6
    CODEN: SYNTBF; ISSN: 0039-7881
DT
    Journal
    English
    ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS
L9
    1971:87097 CAPLUS
AN
DN
    74:87097
TI Mixed sulfonic-carboxylic anhydrides. II.
    Reactions with aliphatic ethers and amines
    Mazur, Yehuda; Karger, Michael H.
ΑU
    Dep. Chem., Weizmann Inst. Sci., Rehovoth, Israel
     J. Org. Chem. (1971), 36(4), 532-40
     CODEN: JOCEAH
DT
     Journal
LΑ
    English
    ANSWER 7 OF 9 CAPLUS COPYRIGHT 2002 ACS
Ь9
AN
    1969:37560 CAPLUS
DN
     Derivatives of 10', 11'-Dihydrospiro[cyclopropane-1,5'-5'H-
     dibenzo[a,d]cycloheptene]and spiro[cyclopropane-1,9'-fluorene]
     Smith Kline and French Laboratories
     Brit., 7 pp.
     CODEN: BRXXAA
DT
     Patent
    English
LA
FAN.CNT 1
                                        APPLICATION NO. DATE
                   KIND DATE
     PATENT NO.
     _____
                          19681009
PI GB 1129718
                         19651019
PRAI US
                          19660307
     US
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ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS 1.9 1961:17629 CAPLUS AN 55:17629 DN OREF 55:3457e-i,3458a-i,3459a-f Amino acids and peptides. XV. Racemization during peptide synthesis Smart, N. A.; Young, G. T.; Williams, M. W. Univ. Oxford, UK CS J. Chem. Soc. (1960) 3902-12 SO DΤ Journal Unavailable LA ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS L9 1955:28036 CAPLUS ΑN 49:28036 DN OREF 49:5403e-i,5404a Studies of trifluoroacetic acid. X. The mechanism of syntheses effected by solutions of oxyacids in trifluoroacetic anhydride Bourne, E. J.; Randles, J. E. B.; Stacey, M.; Tatlow, J. C.; Tedder, J. M. ΔIJ CS Univ. Birmingham, UK J. Am. Chem. Soc. (1954), 76, 3206-8 SO Journal Unavailable => d abs 5 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS Ь9 Three amides and 7 peptides were prepd. in 78-99% yields by condensing the AB acid and amine components by BrP(O)(OEt)2 (I), a new and inexpensive reagent for racemization-free peptide coupling. I reacts with the acid component at -15.degree. to form a reactive di-Et phosphoric-carboxylic mixed anhydride which is amidated with the amine component to give the desired amide or peptide. I was prepd. by brominating P(OEt)3 at -30.degree. to -20.degree.. => d abs 6 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS The powerful acylating ability of mixed sulfoniccarboxylic an-hydrides is demonstrated by their facile cleavage of ethers. The nature of this cleavage process is discussed and its distinction and advantages over acyl halide cleavage indicated. Potential syn-thetic uses of this reaction are pointed out and a brief summary of the results with amines is included. => d abs 3 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS A review discussion with 26 refs. Monomethyl esters of acyl phosphates ( mixed anhydrides of carboxylic and phosphoric acids) are being developed as site-directed acylating agents for amino groups in proteins. In an illustrative application, these anionic materials are shown to bind to a pos. charged region of Hb where they convert amino groups to amides. Bifunctional acyl Me phosphates crosslink Hb to give a variety of products, some of which have the oxygen-binding properties anticipated for materials that can serve as an alternative to red cells in transfusions. Higher yields of desired products result from the use of a trifunctional analog. Kinetic patterns of the reactions of a series of alkyl amines and Me aroyl

phosphates indicate that the transition state for formation of the amide

involves almost complete development of pos. charge on nitrogen.

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LOGOFF? (Y)/N/HOLD:y

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FULL ESTIMATED COST
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55.69

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
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STN INTERNATIONAL LOGOFF AT 13:42:41 ON 13 AUG 2002

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TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002
  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.
Crossover limits have been increased. See HELP CROSSOVER for details.
Calculated physical property data is now available. See HELP PROPERTIES
for more information. See STNote 27, Searching Properties in the CAS
Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf
=> s tosyl chloride/cn
             1 TOSYL CHLORIDE/CN
=> d
   ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
L1
RN
   98-59-9 REGISTRY
    Benzenesulfonyl chloride, 4-methyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
    p-Toluenesulfonyl chloride (8CI)
OTHER NAMES:
    4-Methylbenzenesulfonyl chloride
     4-Methylphenylsulfonyl chloride
CN
    4-Toluenesulfonyl chloride
CN
CN
    4-Tosyl chloride
CN
     p-Methylbenzenesulfonyl chloride
    p-Methylphenylsulfonyl chloride
CN
CN
     p-Toluenesulfochloride
     p-Toluenesulfonic acid chloride
CN
CN
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CN
    p-Toluenesulphonyl chloride
    p-Tolylsulfonyl chloride
CN
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CN
CN
     Toluenesulfonyl chloride
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MF
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CI
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LC
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       CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX,
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       IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*,
       PIRA, PROMT, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, USPAT2, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources: DSL**, EINECS**, TSCA**
```

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

5440 REFERENCES IN FILE CA (1967 TO DATE)
78 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5448 REFERENCES IN FILE CAPLUS (1967 TO DATE)
35 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS

RN 98-09-9 REGISTRY

CN Benzenesulfonyl chloride (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN Benzene sulfochloride

CN Benzenesulfonic chloride

CN Phenylsulfonyl chloride

FS 3D CONCORD

DR 114415-79-1

MF C6 H5 Cl O2 S

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA,
CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN,
CSCHEM, CSNB, DETHERM\*, EMBASE, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT,
IFIUDB, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, RTECS\*, SPECINFO, SYNTHLINE,
TOXCENTER, ULIDAT, USPAT2, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2827 REFERENCES IN FILE CA (1967 TO DATE)

79 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

2830 REFERENCES IN FILE CAPLUS (1967 TO DATE)

26 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST

ENTRY SESSION 11.54 11.75

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FILE COVERS 1907 - 13 Aug 2002 VOL 137 ISS 7 FILE LAST UPDATED: 12 Aug 2002 (20020812/ED)

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=> s l1 or l2 5448 L1

2830 L2

L3 7305 L1 OR L2

=> s 13 and anhydride

170631 ANHYDRIDE

27578 ANHYDRIDES

180168 ANHYDRIDE

(ANHYDRIDE OR ANHYDRIDES)

L4 801 L3 AND ANHYDRIDE

=> s 14 and mixed

671364 MIXED

6 MIXEDS

671368 MIXED

(MIXED OR MIXEDS)

L5 53 L4 AND MIXED

=> s 15 and carboxylic

187045 CARBOXYLIC

46 CARBOXYLICS

187063 CARBOXYLIC

(CARBOXYLIC OR CARBOXYLICS)

L6 15 L5 AND CARBOXYLIC

=> d 1-15

L6 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2002 ACS

AN 2002:283003 CAPLUS

DN 137:93427

Synergistic effect in the catalysis by pyridine N-oxide-triethylamine mixture of acyl transfer processes with participation of benzoyl, diethoxyphosphinoyl, and p-toluenesulfonyl chlorides

AU Belousova, I. A.; Savelova, V. A.; Simanenko, Yu. S.; Panchenko, B. V.

CS Litvinenko Institute of Physical Organic and Coal Chemistry, National

```
Academy of Sciences of Ukraine, Donetsk, 83114, Ukraine
SO
    Russian Journal of Organic Chemistry (Translation of Zhurnal Organicheskoi
     Khimii) (2002), 38(1), 111-114
     CODEN: RJOCEQ; ISSN: 1070-4280
PR
    MAIK Nauka/Interperiodica Publishing
DT
    Journal
    English
LΑ
RE.CNT 17
             THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 2 OF 15 CAPLUS COPYRIGHT 2002 ACS
L6
    2001:128886 CAPLUS
AN
DN
    134:296058
ΤI
    Simple and efficient method for synthesis of Z-/Boc-amino acid amides
    using p- toluenesulphonyl chloride
AU
    Ananda, Kuppanna; Vasanthakumar, Ganga-Ramu; Babu, Vommina V. Suresh
CS
    Department of Studies in Chemistry, Central College, Bangalore University,
    Bangalore, 560 001, India
    Protein and Peptide Letters (2001), 8(1), 45-48
SO
    CODEN: PPELEN; ISSN: 0929-8665
PB
    Bentham Science Publishers
DT
    Journal
LA
    English
os
    CASREACT 134:296058
             THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 17
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 3 OF 15 CAPLUS COPYRIGHT 2002 ACS
L6
AN
    2001:91539 CAPLUS
DN
    134:147610
ТT
    Compositions containing N-amino- and N-hydroxy-quinazolinones and methods
    for preparing combinatorial libraries thereof
IN
    Gao, Yun
PA
    Sepracor Inc., USA
SO
    U.S., 15 pp.
    CODEN: USXXAM
DT
    Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                   KIND DATE APPLICATION NO. DATE
    -----
                                        -----
                                     US 1997-990855 19971215
    US 6184377 B1 20010206
PΙ
    US 2001018518
                    A1 20010830
                                        US 2001-775339 20010201
                    B2 20020806
    US 6429311
PRAI US 1997-990855 A1 19971215
OS MARPAT 134:147610
RE.CNT 19
             THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 4 OF 15 CAPLUS COPYRIGHT 2002 ACS
AN
    1999:513654 CAPLUS
DN
    131:322786
    Diterpenoid carboxylic acid anhydrides of the
TI
    abietane, pimarane, and isopimarane series
ΑU
    Bardyshev, I. I.
CS
    Institute of Physical Organic Chemistry, National Academy of Sciences of
    Belarus Republic, Minsk, 220072, Belarus
    Russian Journal of Organic Chemistry (Translation of Zhurnal Organicheskoi
SO
    Khimii) (1999), 35(1), 41-55
    CODEN: RJOCEQ; ISSN: 1070-4280
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    MAIK Nauka/Interperiodica Publishing
DT
    Journal
    English
LA
RE.CNT 64
             THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD
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## ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L6
    ANSWER 5 OF 15 CAPLUS COPYRIGHT 2002 ACS
AN
    1994:435186 CAPLUS
DN
    121:35186
TΤ
    Preparation of hydroxycephamcarboxylic acid esters as intermediates for
    cephalosporin antibiotics
IN
    Hamashima, Yoshio; Takami, Fumitaka
    Shionogi Seiyaku Kk, Japan
PΑ
SO
    Jpn. Kokai Tokkyo Koho, 9 pp.
    CODEN: JKXXAF
DT
    Patent
LA
    Japanese
FAN.CNT 1
                   KIND DATE
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                    <del>-</del> -- --
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                                        -----
    JP 05345786 A2 19960313
PΙ
                                       JP 1993-39360
                                                       19930202
os
    CASREACT 121:35186
L6
    ANSWER 6 OF 15 CAPLUS COPYRIGHT 2002 ACS
    1992:571456 CAPLUS
AN
DN
    117:171456
ΤI
    Process for producing dioxane derivatives and pharmaceutical compositions
    comprising same as active ingredient
IN
    Mikite, Gyula; Petocz, Lujza; Szecsey Hegedus, Maria; Fekete, Marton;
    Szirt Kiszelly, Eniko; Kapolnai, Laszlo; Furdyga, Eva; Kazo Daroczi,
    Klara; Sztuhar, Ilona; Zsila, Gizella
PA
    Hunq.
SO
    Hung. Teljes, 39 pp.
    CODEN: HUXXBU
DT
    Patent
LA
    Hungarian
FAN.CNT 1
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                                APPLICATION NO. DATE
                                       -----
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    HU 59123 A2 19920428 HU 1990-5934
PΤ
                                                      19900918
os
    CASREACT 117:171456; MARPAT 117:171456
L6
    ANSWER 7 OF 15 CAPLUS COPYRIGHT 2002 ACS
    1991:675263 CAPLUS
AN
DN
    115:275263
ΤI
    Isothiocyanic acid mixed anhydride for amino acid
    thiohydantoin formation and peptide sequencing
IN
    Hawke, David H.; Boyd, Victoria
PΑ
    Applied Biosystems, Inc., USA
SO
    PCT Int. Appl., 65 pp.
    CODEN: PIXXD2
DT
    Patent
LΑ
    English
FAN.CNT 1
                KIND DATE
    PATENT NO.
                                      APPLICATION NO. DATE
    WO 9109868
                   A1 19910711
                                       WO 1990-US7567 19901220
        W: JP
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE
    US 5041388
EP 506846
    US 5049507 A 19910917 US 1989-454666 19891221
                                      US 1990-547088 19900629
                   A 19910820
                   A1 19921007
                                      EP 1991-902443 19901220
                   B1 19950719
       R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
    JP 05500421 T2 19930128
                                    JP 1991-502895 19901220
                        19891221
PRAI US 1989-454666
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19900629

US 1990-547088

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WO 1990-US7567
                          19901220
os
    MARPAT 115:275263
    ANSWER 8 OF 15 CAPLUS COPYRIGHT 2002 ACS
   1990:234482 CAPLUS
DN
    112:234482
ΤI
    Polymer-catalyzed synthesis of acid anhydrides
IN
    Fife, Wilmer K.; Zhang, Zhi Dong
PΑ
    Indiana University Foundation, USA
SO
    U.S., 10 pp. Cont.-in-part of U.S. Ser. No. 52,439.
    CODEN: USXXAM
DT
    Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                    KIND DATE
                                        APPLICATION NO. DATE
PΙ
    US 4874558
                     A 19891017
                                        US 1988-284846
                                                        19881213
PRAI US 1987-52439
                          19870521
    CASREACT 112:234482; MARPAT 112:234482
L6
    ANSWER 9 OF 15 CAPLUS COPYRIGHT 2002 ACS
   1987:198022 CAPLUS
AN
   106:198022
DN
ΤI
   Sizing compositions for paper
IN
   Emerson, Ralph W.; Feeney, George F.
PA Reichhold Chemicals, Inc., USA
SO
   Braz. Pedido PI, 20 pp.
    CODEN: BPXXDX
DТ
   Patent
LA Portuguese
FAN.CNT 1
    PATENT NO.
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                                        APPLICATION NO. DATE
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                                         ______
   BR 8506522
                    A 19860909
                                        BR 1985-6522
                                                        19851226
PRAI US 1985-703983
                         19850221
    ANSWER 10 OF 15 CAPLUS COPYRIGHT 2002 ACS
L6
ΔN
    1986:206840 CAPLUS
DN
    104:206840
ΤI
    Preparation of unsymmetrical carboxylic acid anhydrides
    from mixed sulfonic-carboxylic anhydrides
ΑU
    Urbanski, Jerzy; Manek, Maria Beata
CS
    Inst. Org. Mater. Sci., Sch. Eng., Radom, 26600, Pol.
    Pol. J. Chem. (1984), 58(10-12), 1227-9
SO
    CODEN: PJCHDQ; ISSN: 0137-5083
DT
    Journal
LA
    English
    CASREACT 104:206840
os
1.6
    ANSWER 11 OF 15 CAPLUS COPYRIGHT 2002 ACS
    1982:422869 CAPLUS
AN
DN
    97:22869
ΤI
    Esterification of carboxylic acids with alcohols using
    benzenesulfonyl and methanesulfonyl chlorides
ΑU
    Dharmaratne, H. R. W.; Gunatilaka, A. A. Leslie; Sotheeswaran, S.
CS
    Dep. Chem., Univ. Peradeniya, Peradeniya, Sri Lanka
SO
    Indian J. Chem., Sect. B (1982), 21B(1), 39-41
    CODEN: IJSBDB; ISSN: 0376-4699
DТ
    Journal
LA
   English
L6
    ANSWER 12 OF 15 CAPLUS COPYRIGHT 2002 ACS
AN
    1977:107582 CAPLUS
DN
    86:107582
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Polybutene composition containing halogen-containing additives and use
    thereof
IN
    Puskas, Imre; Cengel, John A.
PA
    Standard Oil Co. (Indiana), USA
    U.S., 5 pp. Division of U.S. 3,954,812.
    CODEN: USXXAM
DT
    Patent
    English
LA
FAN.CNT 2
    PATENT NO.
                   KIND DATE
                                     APPLICATION NO. DATE
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                                      -----
                                     US 1975-633454 19751119
    US 4008168
                   A 19770215
    US 3954812
                   A 19760504
                                     US 1973-358911 19730510
PRAI US 1973-358911
                        19730510
    ANSWER 13 OF 15 CAPLUS COPYRIGHT 2002 ACS
L6
    1974:18768 CAPLUS
AN
DN
    80:18768
ΤI
    Silicate foams
    Von Bonin, Wulf; Nehen, Ulrich; Von Gizycki, Ulrich
IN
PA
    Bayer A.-G.
SO
    Ger. Offen., 36 pp.
    CODEN: GWXXBX
DT
    Patent
LA
    German
FAN.CNT 5
                   KIND DATE
                                     APPLICATION NO. DATE
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                                      -----
                   A1 19730705
PΙ
    DE 2165912
                                     DE 1971-2165912 19711231
    US 3850650
                   Α
                         19741126
                                     US 1972-318068
                                                      19721226
                   A1 19730629
    BE 793516
                                     BE 1972-125990 19721229
    NL 7217840
                   A 19730703
                                     NL 1972-17840
                                                     19721229
                   A1 19730914
    FR 2169895
                                     FR 1972-46954
                                                     19721229
    IT 974410
                   A 19740620
                                     IT 1972-55146 19721229
                                     JP 1973-4211
    JP 48078226
                   A2 19731020
                                                    19721230
    GB 1429804
US 3864137
                   A 19760331
                                     GB 1973-71
                                                     19730101
                   A 19750204
                                     US 1973-363671 19730524
PRAI DE 1971-2165912
                       19711231
    DE 1971-2114609
                        19720325
    DE 1972-2214609
                        19720325
    DE 1972-2227608
                        19720607
    US 1972-318068
                        19721226
    ANSWER 14 OF 15 CAPLUS COPYRIGHT 2002 ACS
L6
AN
    1970:22308 CAPLUS
DN
    72:22308
TI
    Retarding agent for epoxide resins
IN
    Lieske, Edgar; Weinrich, Erwin
PA
    Henkel und Cie. G.m.b.H.
SO
    Ger., Offen., 10 pp.
    CODEN: GWXXBX
DT
    Patent
LA
    German
FAN.CNT 1
    PATENT NO.
                   KIND DATE
                                      APPLICATION NO. DATE
   DE 1904934
                         19691120
PRAI CH
                         19680429
    ANSWER 15 OF 15 CAPLUS COPYRIGHT 2002 ACS
AN
    1968:451781 CAPLUS
DN
    69:51781
TI
    Thallium in organic synthesis. II. Acylation, aroylation, and tosylation
    of phenols and carboxylic acids
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- AU Taylor, Edward C.; McLay, G. W.; McKillop, Alexander
- Princeton Univ., Princeton, N. J., USA CS
- SO J. Amer. Chem. Soc. (1968), 90(9), 2422-3 CODEN: JACSAT
- DTJournal
- LΑ English
- => d abs 10
- ANSWER 10 OF 15 CAPLUS COPYRIGHT 2002 ACS Treating RSO2Cl (R = Ph, 4-MeC6H4) with R1CO2H (R1 = Et, Ph, 4-O2NC6H4) and Et3N or pyridine as catalyst in dioxane below 0.degree. gave 39-72% RSO2OCOR1 (I). PhNMe2 did not catalyze this reaction. I underwent similar reaction with R2CO2H (R2 = 4-O2NC6H4, PhCH2, 2-MeC6H4) at .apprx.0.degree. giving 35-63% R1CO2COR2.

=>